

Original + 2

**EX PARTE OR LATE FILED**  
**KRASKIN & ASSOCIATES**  
ATTORNEYS AT LAW  
2120 L STREET, N.W. SUITE 810  
WASHINGTON, D.C. 20037

DOCKET FILE COPY ORIGINAL

STEPHEN G. KRASKIN

OF COUNSEL:

CARESSA D. BENNET

SYLVIA L. LESSE\*

MARJORIE GILLER SPIVAK\*

CHARLES D. COSSON\*

MARGARET D. NYLAND+

TELEPHONE (202) 296-8890  
TELECOPIER (202) 296-8893

WRITER'S DIRECT LINE:

\*ALSO ADMITTED IN TX AND VA

\*ALSO ADMITTED IN PA

\*ONLY ADMITTED IN VA

April 15, 1994

Office of the Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

**RECEIVED**  
**APR 15 1994**  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Re: **GEN Docket 90-314**  
**ex parte presentation**


Ladies and Gentlemen:

We are submitting an original and two copies of this letter to inform the Commission that today myself, Steve Kraskin and Carri Bennet met with Ralph Haller and Renee Licht of the PCS Task Force to discuss issues relating to U.S. Intelco's proposal to promote the provision of PCS services to rural America.

The issues discussed relate to those discussed in U.S. Intelco's comments filed in this proceeding. The specific U.S. Intelco proposal is more fully explained in the attached document, which was distributed at the meeting. Copies of this document are also being distributed today to other members of the PCS Task Force. We ask that a copy of this document be included in the record.

Should there be any questions, please contact this office.

Sincerely,

  
Charles D. Cosson

No. of Copies rec'd 0+2  
List ABCDE

# **Ex Parte Presentation of U.S. Intelco Networks**

Presented by:

Stephen G. Kraskin  
Caressa D. Bennet  
Charles D. Cosson

Kraskin & Associates  
2120 L Street, N.W., Suite 810  
Washington, D.C. 20037  
(202) 298-8890  
(202) 296-8893 (FAX)

**April 15, 1994**

# Summary

► **Statutes and Commission Orders Specify a Congressional Mandate to Ensure Rapid Deployment of New Spectrum-Based Services to Rural Areas**

- The FCC's Policy Statements Agree that Provision of New Services to Rural Areas is a Commission Priority;
- This Proposal Supports Additional Principles Articulated by the Commission as a Basis for PCS Decisions.

► **The FCC's Proposals Fail to Fulfill The Congressional Mandate to Create a PCS License Structure Which Will Expeditiously Bring Service to Rural Areas**

- The FCC's benchmarks, based on population, allow a licensee to fulfill its regulatory requirements by concentrating on the most populous areas;
- Spectrum warehousing could also result - licensees may likely have an economic incentive to delay service until rural areas can profitably be incorporated into urban area-based network.

► **Rural Proposal**

**A qualifying rural telephone company should be permitted to request a partitioned license for a rural service area defined by the qualifying rural telephone company. The qualifying rural telephone company would contribute a pro rata share of the MTA/BTA winner's auction bid price. Population covered by the partitioning licensee would count toward the initial licensee's benchmark requirements.**

- Congress has specifically provided legislative authority for this proposal;
- This proposal will promote economic opportunities for rural telephone companies and promote investment in and rapid deployment of new technologies and services.

## **BACKGROUND**

### **There is a Congressional Mandate to Ensure Rapid Deployment of New Spectrum-Based Services to Rural Areas**

- ▶ **The Omnibus Budget Reconciliation Act provides the following objectives:**
  - Promote the development and rapid deployment of new technologies, products and services for the benefit of the public, including those in rural areas, without administrative or judicial delay. 309(j)(3)(A).
  - Ensure that new and innovative technologies are readily accessible to the public by disseminating licenses among a wide variety of applicants, including . . . rural telephone companies. 309(j)(3)(B).
  - Adopt area designations and bandwidth assignments that promote economic opportunities for rural telephone companies and promote investment in and rapid deployment of new technologies and services. 309(j)(4)(D).
- ▶ **The Communications Act has long stated that a purpose of the Commission is to make communications service available "to all the people of the United States." 47 U.S.C. § 151.**

## **The PCS Partitioning Proposal**

**A qualifying rural telephone company<sup>1</sup> should be permitted to request a partitioned license for an eligible rural service area. The contours of the rural service area would be defined by the requesting rural telephone company within certain guidelines. The MTA/BTA winner would be permitted to charge the qualifying rural telephone company no more than a pro rata share of the MTA/BTA winner's auction bid price (as measured on a per - "pop" basis) as compensation for a rural telephone company's portion of the license.**

**The "pops" covered by the partitioning licensee would count toward the benchmark requirements applied to the initial licensee. Initial MTA/BTA licensees could successfully oppose a partitioning request only by affirming and demonstrating that they will provide service to that rural service area within 1 year of the request. Failure to meet that affirmation would result in forfeit of the license.**

*This proposal will:*

- 1) Fulfill the Congressional mandate to promote economic opportunity for rural telephone companies and ensure prompt delivery of service to rural areas;
- 2) Prevent MTA/BTA licensees from warehousing spectrum or otherwise allowing substantial portions of their service area to lie fallow;
- 3) Be administratively simple for both the Commission and potential service providers;
- 4) Be mutually beneficial for rural telephone companies, and MTA/BTA licensees;
- 5) Promote the development of the PCS industry by speeding new entry by rural providers, thus speeding development of standards, equipment manufacturing efficiencies, and marketing information;
- 6) Promote federal policies with respect to economic development, job creation, and distribution of advanced technologies to rural areas.

---

<sup>1</sup> Congress has provided a definition of a "rural telephone company" in pending legislation. HR 3636 (Committee Print, March 7, 1994, p. 10-11). This definition could be utilized to define the eligibility criteria both for the applying rural telephone company, and for the rural areas eligible to be partitioned.

# **PCS Partitioning Proposal - Attachments**

- Quarterly Reports filed by Rural PCS Providers with Experimental Licenses.**
  - ◆ Middle Georgia Personal Communications, Inc.**
  - ◆ Panhandle Telephone Cooperative, Inc.**
  - ◆ Tri-Star Communications, Inc.**
  - ◆ Columbia Wireless Limited Partnership**
- Remarks of FCC Chairman Reed Hundt at the World Telecommunications Development Conference.**
- Excerpts from "PCS White Paper No. 1" submitted by the Cellular Telecommunications Industry Association (August 11, 1993).**

STAMP AND RETURN

**Middle Georgia Personal Communications  
250 Broad Street, P.O. Box 607  
Hawkinsville, GA 31036  
(912) 783-4001**

H. Franklin Wright  
Frequency Liaison Branch  
Office of Engineering and Technology  
Federal Communications Commission  
Washington, D.C. 20554

RECEIVED

FEB 15 1994

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**Re: Station KM2XGK  
File No. 4014-EX-PL-92**

Dear Mr. Wright:

Pursuant to the conditions of Station KM2XGK's experimental license, which was granted on August 17, 1992, this constitutes the sixth of our quarterly reports regarding the progress of the authorized experimental PCS operations. In the time since the license was granted, Middle Georgia Personal Communications (MGPC) has examined a number of areas of its operations.

Specifically, MGPC has addressed questions of equipment selection and specifications, system interconnection, and has examined the characteristics of its authorized experimental market. Engineering staffing has been considered, and a marketing firm is also under consideration. Additionally, MGPC has reviewed pertinent technical information for implementing its proposal.

MGPC has arranged to perform experiments utilizing Motorola Silverlink CT2 equipment. The Silverlink system operates on the 800 Mhz frequency band. One private base station, one public base station, and 3 handsets allow for a variety of configurations. The private base station interfaces with ordinary telephone jacks. The public base station also hooks to a standard 500-type telephone connection, and comes with a 0 db antenna and a 3 db antenna which can be raised from 20 - 50 feet. The antennas come with coaxial waveguides.

The Silverlink equipment utilizes a common air interface, and utilizes CT2 technology. While CT2 does not permit incoming calls to register at the handset on the public base station, the Silverlink system will be combined with paging and mobile telephony services so that a page notifies the user of a call, and the user can elect to return the call or transfer the caller to a voice mail system.

H. Franklin Wright  
Page 2

At the time of this report, MGPC is actively experimenting with the Silverlink equipment, and will provide greater detailed information regarding the results of its experiment in its next report. The experiments contemplated will test both coverage and other technical aspects of the Silverlink equipment, and examine customer response information, in order to assist MGPC in developing appropriate service offerings for rural areas. MGPC expects to complete these experiments, including an initial marketing survey, by the end of February 1994. If needed, arrangements have been made to continue the experiment through March if needed.

MGPC is also presently conducting discussions with equipment vendors with the goal of acquiring other PCS equipment which will operate in spectrum bands other than the 800 MHz band, to more fully explore the relevant characteristics of PCS service in its service area.

Any technical questions concerning this report should be addressed to:

W. Manse Jennings  
Middle Georgia Personal Communications  
250 Broad Street  
P.O. Box 607  
Hawkinsville, GA 31036  
Phone: (912) 783-4001  
FAX: (912) 692-9009

Any other questions concerning this report should be addressed to:

Charles D. Cosson  
Kraskin and Associates  
2120 L Street, N.W., Suite 810  
Washington, D.C. 20037  
Phone: (202) 296-8890  
FAX: (202) 296-8893



MIDDLE GEORGIA PERSONAL COMMUNICATIONS

Date: 9/15/94

By:   
W. W. Jennings

PANHANDLE TELEPHONE COOPERATIVE, INC.  
603 SOUTH MAIN STREET  
P.O. BOX 1188  
GUYMON, OKLAHOMA 73942-1188  
(405) 338-2556  
FAX (405) 652-3444

H. Franklin Wright  
Frequency Liaison Branch  
Office of Engineering and Technology  
Federal Communications Commission  
Washington, D.C. 20554

RECEIVED

FEB 15 1994

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Re: Station KM2XGN  
File No. 3116-EX-PL-92

Dear Mr. Wright:

Pursuant to Condition 3 of Station KM2XGN's experimental license, which was granted on August 17, 1992, this constitutes the sixth of our quarterly reports regarding the progress of the authorized experimental PCS operations.

Following three earlier short term experiments, Panhandle Telephone Cooperative, Inc. (PTCI) had been planning for some time to deploy equipment at a large cattle feedlot in Texas County, Oklahoma. This experiment failed to mature as the manufacturer could not supply equipment to meet the outdoor environmental conditions required for that application.

PTCI personnel have since made site visits for preliminary engineering studies and site mapping at a different location. PTCI is presently in the process of deploying Northern Telecom Companion 100 equipment at Adams Hardfacing, Inc. in Guymon, Oklahoma. Adams Hardfacing is a manufacturer of farm tillage tools with worldwide distribution.

One person employed by PTCI has completed Manufacturer training in installation and maintenance of the equipment. Customer representatives were contacted to determine precise equipment requirements. A field trial contract has been signed between PTCI and Northern Telecom (copy attached). A letter of commitment has been received from Adams Hardfacing (also included in the attachments). Proper test evaluation criteria will be researched in the near future in cooperation with the manufacturer. PTCI expects to have this equipment functional by March 1, 1994. We plan to conduct experiments at this site for at least a 90-day period.

This particular test will involve the use of 8 hand-held units and 8 base stations deployed in conjunction with a Mitel SX-200 PBX system. There are five building complexes covering an area of approximately four city blocks (see attached map). PTCI and Northern Telecom are providing this test system at no cost to Adams Hardfacing.

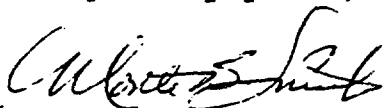
Any technical questions concerning this report should be addressed to:

Monte Smith  
Panhandle Telephone Cooperative, Inc.  
603 South Main Street  
P.O. Box 1188  
Guymon, Oklahoma 73942-1188  
(405) 338-2556  
Fax (405) 652-3444

Other questions concerning this report should be addressed to:

Stephen G. Kraskin  
Caressa D. Bennet  
Kraskin and Associates  
2120 L Street, N.W., Suite 810  
Washington, D.C. 20037  
(202) 296-8890  
Fax: (202) 296-8893

Very truly yours,



for Gary Kennedy  
Chief Executive Officer  
Panhandle Telephone Cooperative, Inc.

Date: February 14, 1994

STAMP AND RETURN

Tri-Star Communications, Inc.  
Highway 129 North  
P.O. Box 470  
Bucklin, MO 64631  
(816) 695-3291

RECEIVED

MAR 21 1994

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

H. Franklin Wright  
Frequency Liaison Branch  
Office of Engineering and Technology  
Federal Communications Commission  
Washington, D.C. 20554

Re: Station KM2XIW  
File No. 4015-EX-PL-92

Dear Mr. Wright:

Pursuant to Condition 3 of Station KM2XIW's experimental license, which was granted on September 23, 1992, this constitutes the sixth of our quarterly reports regarding the progress of Tri-Star's authorized experimental PCS operations. In the time since our last report, Tri-Star Communications (Tri-Star) has arranged for experimental equipment and conducted a number of experiments.

Tri-Star arranged to utilize Silverlink telepoint equipment from Motorola to develop a variety of service applications using its experimental frequencies. The Silverlink equipment utilizes CT2 technology. As described in our last report, this equipment operates in the following fashion: the paging aspect of the system instructs a caller to announce him/herself, and then asks the caller to wait while the call is processed. The paging unit then rings the called party, and the called party can then call into the system on the handset and hear the announcement in the caller's own voice. The called party then has the option to connect with the caller, or instruct the system to divert the caller to voice mail. The entire process is transparent to the caller, and allows the called party maximum flexibility.

The experiments conducted by Tri-Star demonstrated that PCS services do have useful applications in rural areas. As a technical matter, the PCS devices offered reasonable communications over limited distances inside buildings. More importantly, PCS communications provided a useful tool for hospital and fire station personnel, and could be of critical importance in an emergency situation in a sparsely populated rural area. Tri-Star also believes that downtown areas in its service area could be outfitted with PCS at a reasonable cost. Summarily, Tri-Star's understanding of the technical requirements and the expected market demand for PCS has led it to believe that, in certain circumstances, it may be possible for a PCS system to be deployed on a cost-effective basis in rural areas.

H. Franklin Wright

Page 2

However, Tri-Star reiterates that regulatory decisions and proposed PCS eligibility rules have dissuaded Tri-Star from experimenting more broadly in the deployment and delivery of PCS to rural Missouri. Tri-Star stands ready and willing to assume the risks of a competitive marketplace. However, Tri-Star believes that prudence requires that it continue to adjust the scale of its experiment in order to more appropriately match its investment with the associated risks.

Nevertheless, Tri-Star expects to utilize its experimental results to develop a grade of service probability prediction model, in order to aid in engineering and market research for future system design, and in developing useful applications for PCS in conjunction with paging services.

Any technical questions concerning this report should be addressed to:

William Biere  
Tri-Star Communications, Inc.  
Highway 129 North  
P.O. Box 470  
Bucklin, MO 64631  
(816) 695-3291  
FAX: (816) 695-3291

Any other questions concerning this report should be addressed to:

Charles D. Conson  
Kraskin & Associates  
2120 L Street, N.W. Suite 810  
Washington, D.C. 20037  
(202) 296-8890  
FAX: (202) 296-8893

Sincerely,

Tri-Star Communications, Inc.

By: William Biere  
William Biere

Date: 3-18-94

## COLUMBIA WIRELESS LIMITED PARTNERSHIP

M/A Address:

P. O. Box 66436

Baton Rouge, LA 70896

504/927-6815

FAX 504/927-6818

4615 North Boulevard

Baton Rouge, LA 70806

December 3, 1993

Mr. H. Frank Wright  
Frequency Liaison Branch  
Office of Engineering and Technology  
Federal Communications Commission  
Washington, D.C. 20554

RECEIVED

DEC -13 1993

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Reference: Station KM2XAQ  
File No. 3000-EX-PL-92

Dear Mr. Wright:

Pursuant to Condition 2 of Station KM2XAQ's experimental license, which was granted on June 8, 1992, this constitutes the sixth of our quarterly reports regarding the progress of the authorized experimental PCS operations.

In the time since our last quarterly report was filed, Columbia Wireless Limited Partnership (CWLP) has continued experiments which will optimize the use of PCS.

CWLP has implemented a digital logic device which acts as an intelligent adjunct to the Public Switched Telephone Network (PSTN) for the implementation of Universal Personal Telephone (UPT) number services and emergency outdial services. With this device, CWLP has experimented with several forms of UPT number service. Some examples are as follows:

1. When the UPT number is dialed by a calling party, the adjunct device makes a dialed number translation to the telephone number associated with the PCS user's location (car, office, home, PCS phone) and routes the call accordingly.
2. When the UPT number is dialed, the adjunct device initiates a locator service by outdialing to several different telephone numbers associated with the PCS user's location (car, office, home, PCS phone). When one of these locations is answered, the adjunct device connects the calling party to the answered phone and discontinues the ringing of the unanswered phones.
3. When the UPT number is dialed, the adjunct device dials a pager number and waits for an incoming call from the called party (PCS user on the public PCS network). When the page is received from the adjunct device, the called party (PCS user) calls into the adjunct device which is waiting for an incoming call. When the adjunct device receives the incoming call, it connects the calling party to the PCS user. This service is extremely useful when using PCS equipment which employs CT2 technology (PCS equipment which allows outbound calls only).

Mr. H. Frank Wright  
December 3, 1993  
Page 2

When any of these three examples are used, the calling party is placed on hold while the called party is being contacted. If the called party is unable to be contacted or in the case of Example #3, the waiting time exceeds a preset length of time, the adjunct device explains this to the calling party and then outdials to the called party's voice mail in order for the calling party to leave a message.

This adjunct device is the equipment with which CWLP has implemented its emergency outdial service. In the event of an emergency, the emergency outdial service will dial presubscribed telephone numbers derived from an "intelligent: geographical mapping system and deliver appropriate emergency instructions.

CWLP is continuing its dialogue with PCS vendors for ISDN type base station and handset equipment. This type of equipment is still not available to a company the size of CWLP because CWLP cannot purchase ISDN PCS equipment in the substantial quantities which is needed to generate interest from the PCS equipment vendors with ISDN PCS base station and handset equipment. CWLP, however, is in the process of negotiating the purchase of used ISDN PCS equipment from a Regional Bell Operating Company which has recently completed its PCS trials. CWLP anticipates the purchase of some of the ISDN PCS equipment for use in its own trials. This ISDN PCS equipment will be connected with the Advanced Intelligent Network (AIN) / Signaling System Seven (SS7) subsystems being installed at Brazoria Telephone Company, Inc. CWLP is planning to use AIN 0.1 or AIN 0.2 software release to accomplish the "intelligent" PCS implementation. This "intelligence" should have a value added effect which will allow PCS to enjoy accelerated market penetration.

CWLP is experimenting with 900 MHz digital spread equipment. This equipment utilizes Code Division Multiple Access (CDMA) technology to provide 100 channels of secure digital voice transmission. The CDMA equipment employs digital spread spectrum techniques to scramble and transmit digitized voice for secure mobile telephone conversations. The CDMA technology is one of two transmission techniques which might be employed for secure mobile PCS communication. CWLP believes that it is important to document the characteristics of a mobile device which utilizes CDMA as its transmission technique.

Any technical questions should be addressed to:

Robert A. Hart IV  
Hart Engineers  
P. O. Box 66436  
Baton Rouge, LA 70896  
Phone: (504) 927-6815  
Fax: (504) 927-6818

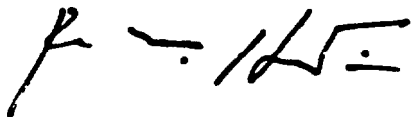
Mr. H. Frank Wright  
December 3, 1993  
Page 3

Any other questions concerning this report should be addressed to:

Charles D. Cosson  
2120 L Street, N.W., Suite 810  
Washington, DC 20037  
Phone: (202) 296-8890  
Fax: (202) 296-8893

Sincerely,

Columbia Wireless Limited Partnership

A handwritten signature in black ink, appearing to read "R. A. Hart IV". The signature is stylized with a large "R" and a long horizontal line extending to the right.

Robert A. Hart IV,  
Managing Partner

RAH IV:AE





# NEWS

FEDERAL COMMUNICATIONS COMMISSION  
1919 M STREET, N.W.  
WASHINGTON, D.C. 20554

09600  
News media information 202 / 632-6050  
Recorded listing of releases and texts  
202 / 632-0002

March 22, 1994

42281

This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See MCI v. FCC, 515 F.2d 385 (D.C. Cir. 1974).

## Chairman Hundt Addresses World Telecommunication Development Conference Calls for an End to Isolation Through Telecommunications

Chairman Reed Hundt said today that the purpose of the first World Telecommunication Development Conference in Buenos Aires, Argentina should be to "end the solitude that inattention and poverty have meted out to millions of people in this world."

Hundt began by evoking the "mythical town of Macondo, a place isolated from its nation, cut off from the world," whose story is told in Gabriel Garcia Marquez' One Hundred Years of Solitude. Hundt said, "We gather here... because we know that much of the world lives in towns like Macondo, isolated from their country, hundreds of years apart from modern technology, cut off from communication with the world."

Hundt noted that "more than half the people on our planet have never made a telephone call. Less than a third have ready access to a telephone. In the world's low income countries, there is less than one telephone per 100 people. Where there are no telephones, there is isolation."

He told conference participants from more than 180 countries that "Communication by telephone is the key to economic growth and the essential condition to full participation in the modern world." He said that as Chairman of the FCC, he has emphasized two themes: economic growth and access and noted that "The objectives of economic growth and access are achievable in our country and in every country because of breakthroughs of invention and entrepreneurship."

Hundt stressed the importance of satellite technology which he said "offers opportunities to build a global, seamless connection among all networks. There is no more compelling case for governmental cooperation and parallel regulation than that presented by satellite providers. They seek to serve the globe, and all countries should cooperate by opening markets to their services."

He said that "in order to make the most out of modern technology," countries must adopt appropriate regulatory regimes, and he called for adherence to the principles, outlined by Vice President Gore on Monday: private investment; competition instead of monopolies; a flexible regulatory framework; open access, interconnection and interoperability; and universal service.

"The issue before us is not whether technological innovation and business investment will take place," Hundt said, "but whether the potential for economic growth through telecommunications development can be fully realized and whether its benefits will be available to all the world's people."

In closing, Hundt quoted the last line of "100 Years of Solitude." "Communities 'condemned to one hundred years of solitude [do] not have a second opportunity on earth.' We know that millions alive today have no second opportunity to participate in the world economy and the world community. By grace of human genius, we know how to give them that opportunity. By our efforts in this conference, let us not fail them. Let us everywhere bring isolation to an end through the miracle of telecommunications."

1/2

10

Reed E. Hundt, Chairman  
Federal Communications Commission  
Speech to World Telecommunication  
Development Conference  
March 22, 1994

The purpose of this first Development Conference of the International Telecommunication Union should be to end the solitude that inattention and poverty have meted out to millions of people in this world.

As our country's Vice-President did yesterday, I would like to begin by quoting a great writer:

"Many years later, as he faced the firing squad, Colonel Aureliano Buendia was to remember that distant afternoon when his father took him to discover ice."

That is, of course, the first line of Gabriel Garcia Marquez' One Hundred Years of Solitude, the most influential Spanish language novel since Don Quixote. The book is the story of the mythical town of Macondo, a place isolated from its nation, cut off from the world.

We gather here in Buenos Aires, at this first conference of telecommunications regulators called for the purpose of discussing development, because we know that much of the world lives in towns like Macondo, isolated from their country, hundreds of years apart from modern technology, cut off from communication with the world.

Just as in Garcia Marquez' novel "ice" was an object of infinite rarity and preciousness in the tropical climate of the fictional Macondo, so the telephone is today a rare thing in thousands of communities.

More than half the people on our planet have never made a telephone call. Less than a third have ready access to telephones. In the world's low income countries, there is less than one telephone per 100 people.

Where there are no telephones, there is isolation.

An efficient communications system means an end to isolation. Where people are in communication there is a possibility of health care, of education, of democracy, of economic growth, of sustainable development.

Telecommunications can hasten the arrival of participatory democracy. As we meet, South Africa is using telecommunications to inform people about how to vote, how to exercise their democratic rights.

Telecommunications can improve health care. In Guyana, rural health workers improve the quality of health care by discussing diagnoses in conference calls with physicians in the capital of Georgetown.

5/6  
Xx

Communication by telephone is not a luxury, but is the key to economic growth and the essential condition to full participation in the modern world.

For that reason, in my job as Chairman of the Federal Communications Commission I and my colleagues have emphasized two themes in our decisionmaking: economic growth and access.

First, we attempt to increase economic growth through our decisions. Communication makes economies grow, domestically and internationally. In our country the communications and information sector will be one-sixth of the total economy by the year 1997.

Tokyo is one of the major financial, commercial and industrial centers of the world. It is no coincidence that Tokyo has more than 66 lines per 100 people, and has the highest ratio of fax machines to people. Japan's communications infrastructure is a key reason for the 10 fold increase in its GNP during the last 40 years.

But there are fewer telephones in the whole of Africa than in Tokyo. This marks not only Japan's accomplishment but also the tragic shortcomings of development elsewhere.

Another measure of the uneven state of communications development is the pattern of international fiber-optic cables and satellite services. Most serve the Northern Hemisphere, and extend East-West. The Southern Hemisphere is grossly underserved.

As a consequence, a phone call from the Ivory Coast to Nigeria -- only 800 miles away -- often is routed through London, then Paris, and finally to Abidjan. The 6000 mile route vastly increases the cost of the call. In the information age, the lack of an effective infrastructure frustrates sustainable development.

The second theme of our decisionmaking at the FCC is access. This means access of our people to each other and access of businesses to customers, whether they want to sell soap or software.

The objectives of economic growth and access are achievable in our country and in every country because of breakthroughs of invention and entrepreneurship.

As an example, AT&T is building in Indonesia wireline networks employing state of the art fiber optic technology. Advanced digital switching is being installed in Bangalore, India. A nationwide cellular system is being deployed here in Argentina.

Satellite technology offers opportunities to build a global, seamless connection among all networks. There is no more compelling case for governmental cooperation and parallel regulation than that presented by satellite providers. They seek to serve the globe, and all countries should cooperate by opening markets to their services.

However, in order to make the most out of modern technology and entrepreneurship, all countries must not only develop adequate infrastructures, they must adopt appropriate regulatory regimes. As Vice-President Gore said yesterday, the key principles of regulation should include:

- First, reliance on private investment.

As a corollary, the private sector must be guaranteed a reasonable opportunity to obtain a fair return on investment. And to maximize the investment incentive, state-owned telecommunications facilities should be privatized.

- Second, competition instead of monopolies.

Competition will lead to pricing toward cost, and therefore will hasten the development of universally available communications networks.

Competition increases innovation, reliable service, and economic growth. But competition must be fair. We aggressively seek in our domestic markets to eliminate cross subsidies and discriminatory access. These policies should be applied internationally.

The competitive model also dictates that international accounting rates and collection charges should be cost-based. Lower prices for telecommunications service dramatically increase demand. This in turn creates more revenues, extending and sustaining world communications networks.

We believe that all countries will benefit from reducing accounting rates and calling prices to appropriate cost-based levels, because then networks will be used more efficiently and domestic businesses will be more competitive.

- Third, a flexible regulatory framework.

Regulators must have the freedom to accommodate evolving technological changes and to ensure that regulations are responsive to market demands, while safeguarding the public interest.

- Fourth, open access, interconnection and interoperability.

If all the members of the ITU do not work together to develop open, interconnected and interoperable networks, the vision of a Global Information Infrastructure will give way to isolated, fragmented systems. These have less value in all respects than globally interconnected systems.

It is especially important not to permit a monopolistic incumbent carrier to block competition through financial and technical barriers. Regulators should issue effective interconnection rules and fair pricing policies.

- Finally, universal service.

As President Menem said yesterday, we have a moral duty to find a way to link people to everyone in their country, and all countries should be linked to the Global Information Infrastructure.

I hope all of you will embrace this commitment to the full implementation of universal service.

Achieving it will require in each country a careful assessment of economic efficiencies, technical capabilities and social benefits. Fortunately, expanding communications markets and diverse new low-cost technologies offer regulators new solutions to the problems of universal service.

In my country we are focusing now on the question of how to extend communications networks to every classroom in the United States. The President, the Vice-President, Secretary of Commerce Ron Brown, Assistant Secretary of Commerce Larry Irving, Senators Hollings and Kerrey, and Congressmen Dingell and Markey are working hard to pass legislation accomplishing this goal. Extending communications networks to the classrooms will revolutionize education.

As Vice-President Gore said yesterday, I hope you here will assume the task of developing a plan to connect every school and library in the world to the Internet and ultimately to the Global Information Infrastructure.

We recognize that, to a degree, the development of the world's telecommunications networks will take place regardless of whether governments adopt appropriate policies, or make commitments to provide universal service.

The issue before us is not whether technological innovation and business investment will take place, but whether the potential for economic growth through telecommunications development can be fully realized and whether its benefits will be available to all the world's people.

As Cervantes wrote in Don Quixote, "There are but two families in the world....the Haves and the Have-nots." We can be sure that the world will always include the Haves — those who can communicate, those who are successful in the world economy.

But we are concerned that every day, everywhere in the world, more people are added to the family of the Have-nots. Through modern communications we can begin to end the division of the world into two separate, non-communicating families. We can bring a real hope of progress to people now isolated from the rest of the world.

The great Argentine writer Jorge Luis Borges wrote a story called The Library of Babel in which he compared the universe to a library. In his characteristically dark manner, he wrote that even if "the human species" were "extinguished, ... the Library would endure: illuminated, solitary, infinite, perfectly motionless, equipped with precious volumes, useless, incorruptible, secret."

Today, that Library is the world of modern knowledge, created and built by communication. It is accessible through telephone links and computers. It is usable through the information infrastructure. This Library, this world of modern knowledge, has the potential to make its users far better off than they are today. Yet, in the words of Borges, that Library is "solitary" and "useless" for everyone in the world who lacks modern means of communication.

Access to Borges' Library for all communities, for all the Macondos of the world, must begin with the discovery of the humble rare tropical ice of the telephone.

We should commit here to hastening this discovery. Our mission is imperative and crucial, because, as Garcia Marquez wrote in the very last line of his great novel, communities "condemned to one hundred years of solitude [do] not have a second opportunity on earth."

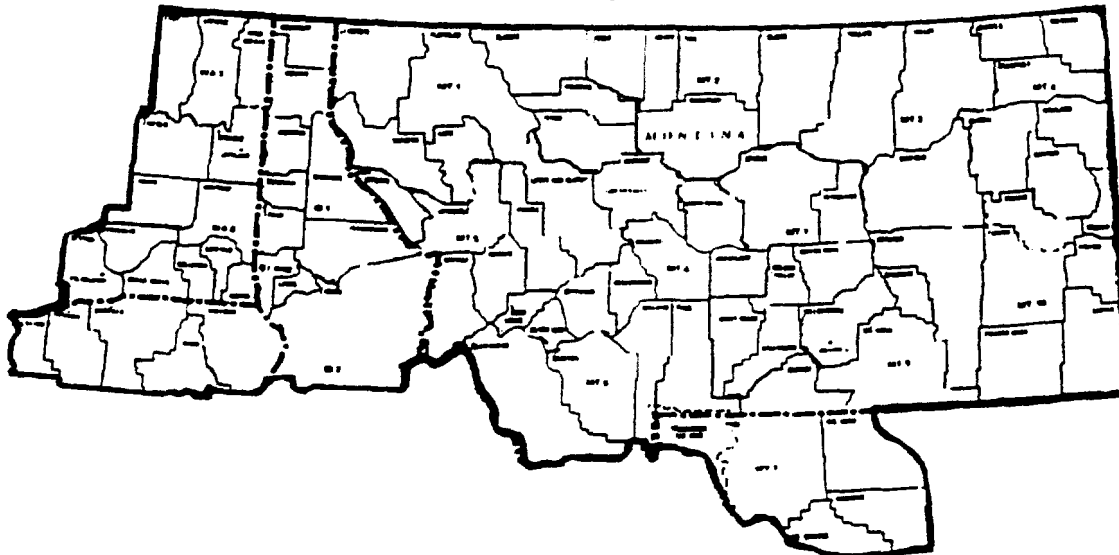
We know that millions alive today have no second opportunity to participate in the world economy and the world community.

By grace of human genius, we know how to give them that opportunity. By our efforts in this conference, let us not fail them. Let us everywhere bring isolation to an end through the miracle of telecommunications.

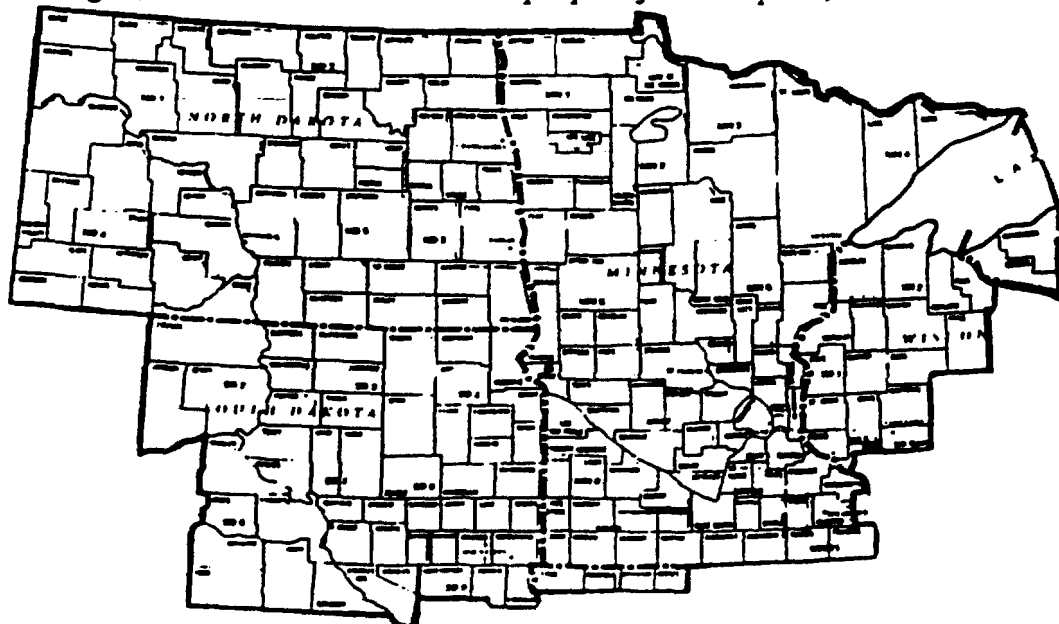


MTAs range anywhere from five counties to a high of 211 counties. *MTAs' size means service will not be deployed everywhere within these areas, only in the most densely populated areas.* There is no question that the 30 percent of the population that lives in rural America -- in areas served by 428 RSAs -- will be disserved by companies licensed to provide service in MTAs.

For example, the Spokane MTA is about 625 miles long by 300 miles wide -- stretching from Walla Walla, Washington, to Wibaux County, Montana, on the North Dakota border; from Sheriden, Wyoming, to the Canadian border. *Will the people of Sheriden, Wyoming, see service as soon as the people of Spokane, Washington?*

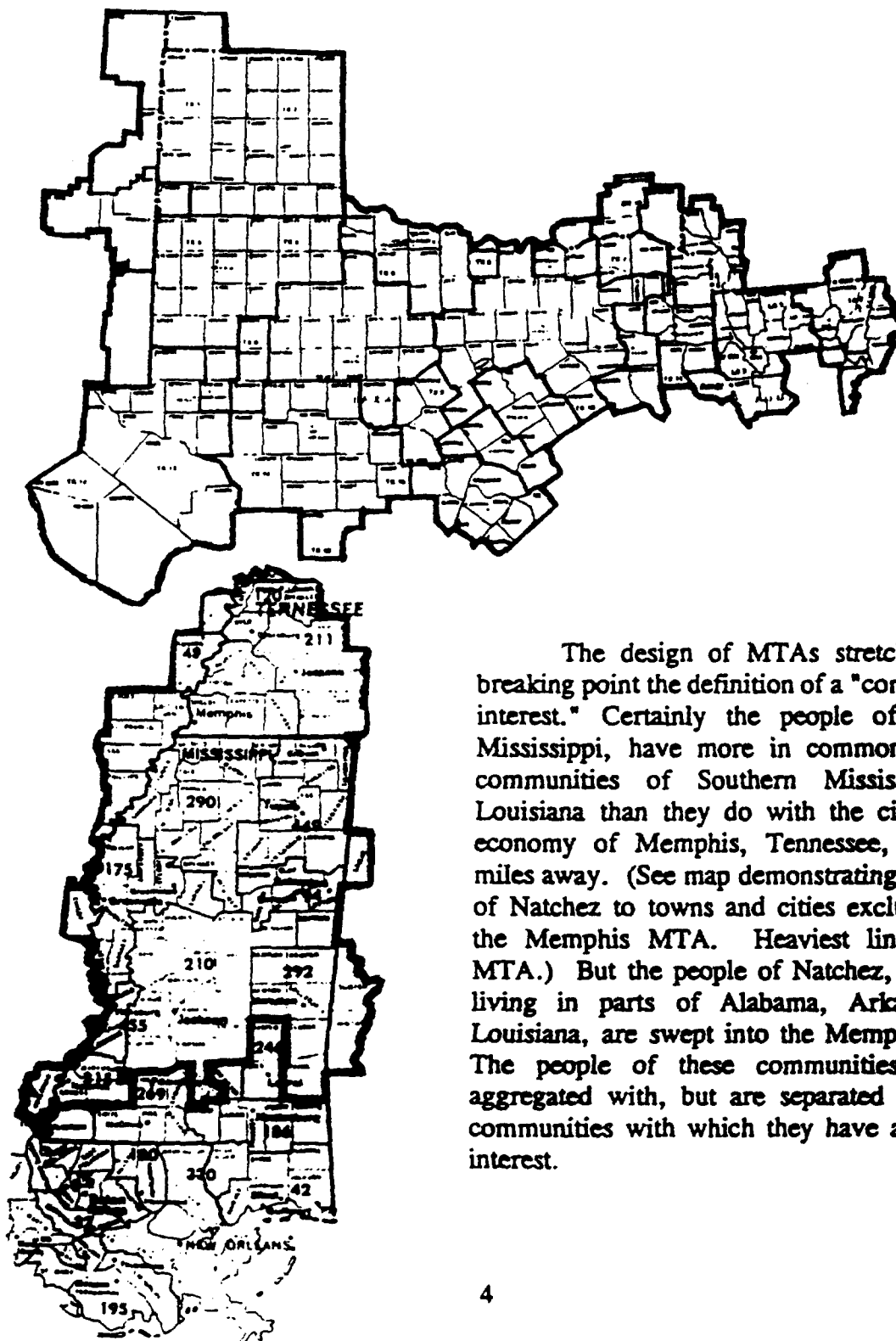


Other MTAs sweep in all, most or part of several states. The Minneapolis MTA -- which is roughly 720 miles long by 410 miles wide -- stretches from Williston, North Dakota, to 50 miles east of Ironwood, Michigan; from the Canadian border to Charles Mix, South Dakota. It contains all of North Dakota and Minnesota, most of South Dakota, and parts of Iowa, Michigan and Wisconsin. *Will the people of Dickinson, North Dakota, and Ironwood, Michigan, see service as soon as the people of Minneapolis, Minnesota?*





And that's not even the largest MTA. The Dallas MTA is about 800 miles long by 600 miles at its widest, stretching from 100 miles west of Clovis, New Mexico, to the Louisiana bluffs overlooking Vicksburg and the Mississippi River; from the Rio Grande to the northern border of Cimarron, Oklahoma. *Will the people of Clovis, New Mexico, and Monroe, Louisiana, see PCS service as soon as the people of Dallas?*



The design of MTAs stretches to the breaking point the definition of a "community of interest." Certainly the people of Natchez, Mississippi, have more in common with the communities of Southern Mississippi and Louisiana than they do with the citizens and economy of Memphis, Tennessee, over 200 miles away. (See map demonstrating proximity of Natchez to towns and cities excluded from the Memphis MTA. Heaviest lines outline MTA.) But the people of Natchez, and those living in parts of Alabama, Arkansas and Louisiana, are swept into the Memphis MTA. The people of these communities are not aggregated with, but are separated from, the communities with which they have a common interest.